

## CLAIMS

1. An implantable fluid management system comprising:
  - a first tube member having a first end, a second end, and a length which defines a lumen therethrough;
  - a pump fluidly coupled to the first tube member, wherein the pump can be actuated; and
  - an integrated controller for controlling actuation of the pump.
2. The system of Claim 1, wherein the integrated controller is located in the pump.
3. The system of Claim 1, wherein the pump is programmed to be actuated when a condition is satisfied.
4. The system of Claim 3, further comprising a pressure sensor, and wherein the condition comprises when the pressure sensor experiences a pressure above a threshold.
5. The system of Claim 1, further comprising a first pressure sensing element on the first tube member, wherein the first pressure sensing element is configured to influence control of the pump.
6. The system of Claim 5, wherein the first end of the first tube member comprises a tip, and wherein the first pressure sensing element is on the tip.

1     7. The system of Claim 5, further comprising:  
2             a second tube member having a length which defines a lumen therethrough; and  
3             a second pressure sensing element placed on the second tube,  
4     wherein the second pressure sensing element is configured to influence control of the  
5     pump.

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7     8. An implantable fluid management system comprising:  
8             a first tube member having a first end, a second end, and a length which defines a  
9     lumen therethrough;  
10            a pump fluidly coupled to the first tube member, wherein the pump can be  
11     actuated, and wherein the implantable fluid management system is configured to actuate  
12     the pump.

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14    9. An implantable fluid management system comprising:  
15            a first tube member having a first end, a second end, and a length which defines a  
16     lumen therethrough;  
17            a pump fluidly coupled to the first tube member, wherein the pump can be  
18     actuated; and  
19            a first pressure sensing element on the first tube, wherein the first pressure sensing  
20     element is configured to influence actuation of the pump.

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22    10. The system of Claim 9, wherein the first end of the first tube member comprises a  
23     tip, and wherein the first pressure sensing element is on the tip.

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11. The system of Claim 9, further comprising:
- a second tube member having a length which defines a lumen therethrough; and
  - a second pressure sensing element placed on the first tube,
- wherein the second pressure sensing element is configured to influence actuation of the pump.
12. An implantable fluid management system comprising:
- a first tube member having a first end, a second end, and a length which defines a lumen therethrough, the first tube comprising an opening at the first end or along the length;
  - a pump fluidly coupled to the first tube member, wherein the pump can be activated; and
  - a filter configured to filter flow through the opening.
13. The system of Claim 12, wherein the filter comprises a semi-permeable membrane.
14. The system of Claim 13, wherein the filter is configured to allow the flow of ions across the filter.
15. The system of Claim 13, wherein the filter comprises a porous mesh.
16. The system of Claim 13, wherein the filter comprises a polymer

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2 17. The system of Claim 13, wherein the filter comprises a screen.

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4 18. The system of Claim 13, wherein the filter is configured to sequester albumin

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6 19. The system of Claim 13, further comprising an anti-clogging agent.

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8 20. The system of Claim 19, wherein the anti-clogging agent comprises coatings which  
9 prevent adhesion of proteinaceous compounds.

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